

AMENDMENTS TO THE SPECIFICATION

On page 1, please amend the TITLE to read as follows:

“PAINT COMPOSITION HAVING IMPROVED FAR-INFRARED RADIOACTIVITYEMISSIVITY, ANTIBIOSIS AND SOLVENT RESISTANCE, AND PRECOATED METAL SHEET COATED THE SAME”

Please replace the paragraph beginning at page 1, line 5 with the following rewritten paragraph:

-- The present invention relates, in general, to a paint composition having high far-infrared ~~radioactivityemissivity~~, antibiotic activity and solvent resistance, and a precoated metal sheet coated with such a paint composition. More particularly, the present invention relates to a paint composition for use in home appliances, which has high gloss, processability and storage stability, as well as high far-infrared ~~radioactivityemissivity~~, antibiotic activity and solvent resistance, and a precoated metal sheet coated with the paint composition. --

Please replace the paragraph beginning at page 2, line 14 with the following rewritten paragraph:

-- As a conventional technique concerned with a paint composition having far-infrared ~~radioactivityemissivity~~, Korean Patent Application No. 1997-18446 discloses the use of a material emitting far-infrared rays by impregnating zeolite with Zn and Ag. However, the material used is expensive, thus negating economic benefits, and also, the far-infrared emissivity is as low as 0.90. --

Please replace the paragraphs beginning at page 4, line 7 to page 5, line 16 with the following rewritten paragraphs:

-- Korean Patent Application No. 1997-702389 discloses a thermosetting composition having high anti-fouling characteristics, weather resistance and chemical resistance using a ceramic component, a coating finish method and a coated article, and Korean Patent Application No. 2001-43214 discloses a urethane based coating resin composition having high gloss, weather resistance, hardness and flexibility, and a curing coating composition including the same. In addition, U. S. Patent No. 6,022,919 discloses a coating composition comprising a resin produced by copolymerizing monomers containing methacrylate ester, OH group, COOH group, styrene and acrylonitrile. However, the coating compositions as mentioned above do not exhibit far-infrared ~~radioactivityemissivity~~ (emission), antibiotic activity, solvent resistance, gloss, processability and storage stability to the extent of being suitable for use in precoated metal sheets for home appliances.

DisclosureSummary of the Invention

Accordingly, the present invention has been made keeping in mind the above problems occurring in the related art, and an object of the present invention is to provide a paint composition having high antibiotic activity, far-infrared ~~radioactivityemissivity~~ and solvent resistance.

Another object of the present invention is to provide a paint composition having high gloss, processability and storage stability, as well as high antibiotic activity, far-

| infrared ~~radioactivityemissivity~~ and solvent resistance.

| A further object of the present invention is to provide a precoated metal sheet
coated with the paint composition having high antibiotic activity, far-infrared
~~radioactivityemissivity~~ and solvent resistance.

| Yet another object of the present invention is to provide a precoated metal
sheet coated with the paint composition having high gloss, processability and storage
stability, as well as high antibiotic activity, far-infrared ~~radioactivityemissivity~~ and solvent
resistance. --

Please replace the paragraphs beginning at page 6, line 5 with the following
rewritten paragraphs:

-- According to the present invention, a paint composition comprising ceramic
powder is provided, thus exhibiting high far-infrared ~~radioactivityemissivity~~ and antibiosis.
Further, phosphoric acid is used, instead of silica, to control the alkalinity. Thereby, the
problem of low processability due to conventional use of silica is overcome, and solvent
resistance and storage stability are increased. Moreover, a silane compound and a curing
catalyst are used to improve gloss of the coated film and further harden the coated film.

The ceramic powder used in the present invention includes at least one alkali
oxide selected from the group consisting of CaCO₃, ZnO, and Al₂O₃ powder, which has high
far-infrared ~~radioactivityemissivity~~. In addition, the ceramic powder may further include Al-
Zn powder. --

Please replace the paragraph beginning at page 8, line 18 with the following rewritten paragraph:

-- The ceramic powder includes at least one selected from the group consisting of CaCO₃, ZnO and Al₂O₃ powder, and may further include Al-Zn powder. The ceramic powder, which exhibits far-infrared ~~radioactivityemissivity~~ and antibiotic activity, is used in an amount of 9-60 parts by weight, preferably 15-30 parts by weight, and more preferably 9-30 parts by weight, based on 100 parts by weight of the thermosetting resin. If the ceramic powder is used in an amount less than 9 parts by weight, far-infrared ~~radioactivityemissivity~~ and antibiosis are decreased. Meanwhile, if the ceramic powder is used in an amount exceeding 60 parts by weight, although far-infrared ~~radioactivityemissivity~~ and antibiosis are increased, processability and gloss are lowered, and also, solvent resistance is undesirably reduced. --

Please replace the paragraph beginning at page 10, line 9 with the following rewritten paragraph:

-- Phosphoric acid is used in an amount of 0.2-4.0 parts by weight, and preferably 0.5-2.0 parts by weight, based on 100 parts by weight of the thermosetting resin. In the case where the ceramic powder is used in a small amount, for example, an amount less than 9 parts by weight, based on 100 parts by weight of the thermosetting resin, the alkalinity can be sufficiently inhibited even though phosphoric acid is used in an amount less than 0.2 parts by weight. However, in the case where an excessive amount of ceramic powder is used to increase the far-infrared ~~radioactivityemissivity~~, the above amount of phosphoric acid is insufficient to decrease the alkalinity of the ceramic powder. On the other hand, if

phosphoric acid exceeds 4.0 parts by weight, acidity is too strong, and thus, the paint may be agglomerated, resulting in lowered storage stability. --

Please replace the paragraph beginning at page 13, line 21 with the following rewritten paragraph:

-- According to the present invention, a precoated metal sheet coated with such a paint composition is provided, which exhibits high far-infrared ~~radioactivityemissivity~~, antibiotic activity, solvent resistance, gloss, processability and storage stability. --

Please DELETE the section heading at page 21, line 11.

Please replace the paragraph beginning at page 21, line 12 with the following rewritten paragraph:

-- As described above, the present invention provides a paint composition including ceramic powder and phosphoric acid, and a precoated metal sheet coated with the paint composition, in which far-infrared ~~radioactivityemissivity~~ and antibiotic activity are excellent, and as well, the alkalinity of the ceramic powder is neutralized by phosphoric acid, to increase the storage stability and solvent resistance. Further, the silane compound and the curing catalyst are additionally used, whereby gloss and processability are improved. --